

REMARKS

This is a full and timely response to the outstanding final Office Action mailed November 22, 2005. Through this response, claims 18 and 23 have been amended; claims 1-17, 20, and 27 have been canceled without prejudice, waiver, or disclaimer. Reconsideration and allowance of the application and pending claims are respectfully requested.

Withdrawal of Rejections

Applicants thank the Examiner for careful consideration of Applicant's amendments and arguments filed previously, and the withdrawal of the rejection of the claims under 35 U.S.C. §102 based on the applied reference.

Cancellation of Claims

Claims 1-17, 20, and 27 are canceled without prejudice, waiver, or disclaimer. Applicants take this action merely to reduce the number of disputed issues and to facilitate early allowance and issuance of other claims in the present application. Applicants reserve the right to pursue the subject matter of the canceled claims in a continuing application, if Applicants so choose, and does not intend to dedicate any of the canceled subject matter to the public.

Claim Rejections - 35 U.S.C. § 102(e)

Claims 18-23 and 25-31 are rejected under 35 U.S.C. § 102(e) as being anticipated by Babich *et al.* ("Babich," U.S. Pat. No. 6,815,329). Applicants respectfully traverse this rejection.

It is axiomatic that “[a]nticipation requires the disclosure in a single prior art reference of each element of the claim under consideration.” *W. L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983). Therefore, every claimed feature of the claimed invention must be represented in the applied reference to constitute a proper rejection under 35 U.S.C. § 102(e).

In the present case, not every feature of the claims is represented in the *Babich* reference. Applicants discuss the *Babich* reference and Applicants’ claims in the following.

Independent claims 18 and 23 have been amended to recite the following: “wherein the overcoat layer is selected from polynorbornenes, epoxides, polyarylenes ethers, parylenes, and combinations thereof.” *Babich* does not teach or suggest these features. As the Examiner indicated in the Office Action, the bridge layer is described in *Babich* (relied on by the Examiner to reject the overcoat layer of the claims) as the following:

[t]he one or more layers of the bridge layer structure, shown as 480 and 490 in FIG. 6K, are preferably dielectric single or multiphase, and selected from the group consisting of silicon-containing materials such as amorphous hydrogenated silicon (a-Si:H), SiO₂, Si₃N₄, SiO_xN_y, SiC, SiCO, SiCOH, and SiCH compounds, these silicon-containing materials with some or all of the Si replaced by Ge, inorganic oxides, inorganic polymers, organic polymers such as polyimides, other carbon-containing materials, organo-inorganic materials such as spin-on glasses, diamond-like carbon (DLC, also known as amorphous hydrogenated carbon, a-C:H)....

Babich at col. 9, lines 41-61. Nothing in the above passage teaches or suggest that the overcoat can be selected from the types of compositions recited in claims 1 and 23.

In addition, it should be noted that *Babich* seeks to prevent electromigration and corrosion of the metal on the side walls of the air gap structure. Specifically,

claim 1 of *Babich* recites depositing the thin conformal layer and then "etching said thin conformal layer...to form sidewall spacer on the sacrificial material". This is not adequate in the methods of the present claims in order to prevent chemical and mechanical distortion of the air cavity because it could potentially leave an open top surface. The open top surface would allow the problem to occur that the methods of the present claims solve.

Further, the structures of *Babich* would not experience the mechanical sagging problem that the methods of the instant claims solve because *Babich* only discloses building mechanically rigid structures with metal framed sidewalls. The metal will hold the mechanical shape, and therefore, the sacrificial material of *Babich* does not have to perform any mechanical function, as in the instantly claimed methods.

For at least these reasons, *Babich* does not teach or suggest all of the features of independent claims 18 and 23.

Because independent claims 18 and 23 are allowable over *Babich*, dependent claims 19, 21-22, 24-26, and 28-31 are also allowable as a matter of law for at least the reason that the dependent claims 19, 21-22, 24-26, and 28-31 contain all elements of their respective base claim. See, e.g., *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

Due to the shortcomings of the *Babich* reference described in the foregoing, Applicants respectfully assert that *Babich* does not anticipate Applicants' claims. Therefore, Applicants respectfully request that the rejection of these claims be withdrawn.

Claim Rejections - 35 U.S.C. § 103(a)

Claim 24 has been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over *Babich* in view of *Kohl et al.* (“*Kohl*,” U.S. Pub. No. US 2002/0081787). Applicants respectfully traverse.

Applicants submit that a *prima facie* for obviousness has not been made against Applicants' claim 23 for at least the reasons stated above. Therefore, it is respectfully submitted that since claim 23 is allowable, its dependent claim 24 is allowable for at least the reason that it contains all of the features/steps of independent claim 23. Therefore, Applicants respectfully request that the rejection of claim 24 be withdrawn. There may be other reasons why independent claim 24 is allowable over the cited art.

CONCLUSION

Applicants respectfully request that all outstanding objections and rejections be withdrawn and that this application and all presently pending claims be allowed to issue. If the Examiner has any questions or comments regarding Applicants' response, the Examiner is encouraged to telephone Applicants' undersigned counsel.

Respectfully submitted,



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